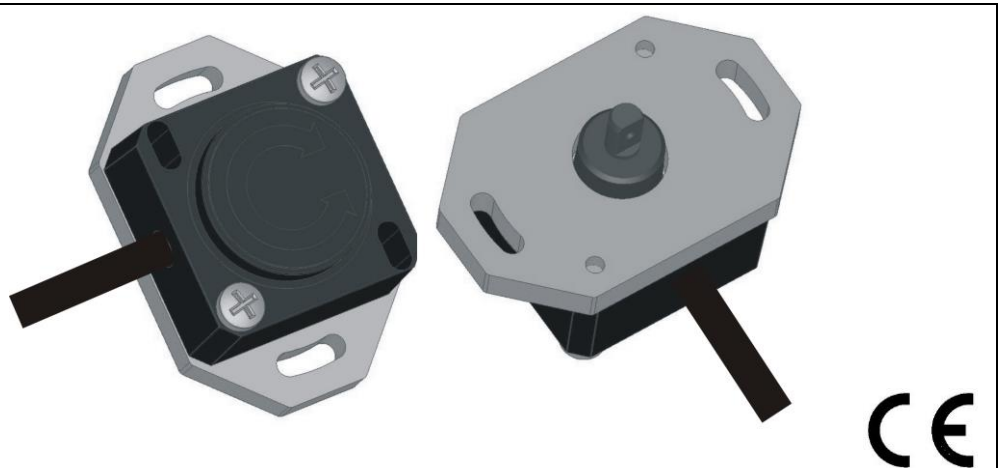


# QR series

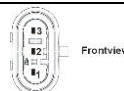


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|--|
| QR46-120HB-V2-P0,1CS3p                       |
| <b>Absolute rotary encoder (contactless)</b> |
| Output<br>0,5 - 4,5 V                        |
| Supply voltage<br>10 - 32 Vdc                |
| Measuring range<br>120° (±60°)               |



| General specifications 12930, v20220829 |  |
|---|--|
| Housing                                 | Q46: PBT black with metal plate  |
| Dimensions (indicative)                 | 40.5x63x28 mm, shaft excluded.   |
| Mounting                                | Mounting holes in bracket for 2x M4 (screws not included)  |
| Ingress Protection (IEC 60529)          | IP66   |
| Relative Humidity                       | 0 - 95% (non condensing, fully potted)   |
| Weight                                  | approx 70 gr (cable excluded)  |
| Shaft                                   | Stainless steel Ø 6 mm   |
| Shaft type                              | D-type 4,6mm with Ø2mm hole (optional lever compatible with Elobau lever)  |
| Shaft bearing                           | Polyamide (glass-filled), Radial force < 1Nm, Axial force < 8N (push & pull)   |
| Shaft length                            | 13,65 mm w.r.t. mounting surface   |
| Supply voltage                          | 10 - 32 Vdc  |
| Polarity protection                     | Yes  |
| Current consumption                     | ≤ 25 mA  |
| Operating temperature                   | -25 to 80°C  |
| Storage temperature                     | -25 to 85°C  |
| Measuring range                         | 120° (±60°)  |
| Programmable center position            | No, use slot holes to adjust 0° point during mounting  |
| Accuracy                                |  |
| Resolution                              | 12 bit over 360° (min. step 0,09°)   |
| Sensitivity error                       | ±0.5% typ. (@20°C), ±1% typ. (full Temp. range)  |
| Offset error                            | ± 7°   |
| Non linearity                           | < ± 1°   |
| Repeatability                           | 0,13°  |
| Response time                           | < 4 ms   |
| Max speed                               | 15 rpm   |
| Output signal                           | 0,5 - 4,5 V  |
| Short circuit protection                | Yes (T<55°C), Max 10 s (T>55°C)  |
| Output load resistor                    | ≥ 20 kΩ  |
| Connection (length ±10%)                | Pigtail cable: 0,1 m TPE/PP Li9y12y, black ø5,2 mm, wires: 3x0,5 mm², connector AMP superseal 1.5 series 3-pole Cap housing (=male) (p/n 282105-1) Tab contacts (p/n 183036-1) with wire seals (p/n 281934-4) and rubber boot (p/n 880811-2) |
| Wire coding                             | Pin 1: (Black1) Gnd<br>Pin 2: (Black2) Supply Voltage<br>Pin 3: (Black3) Output  |

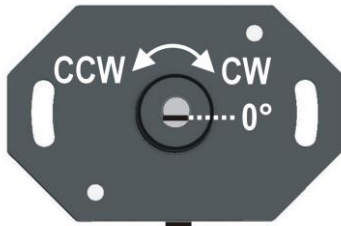
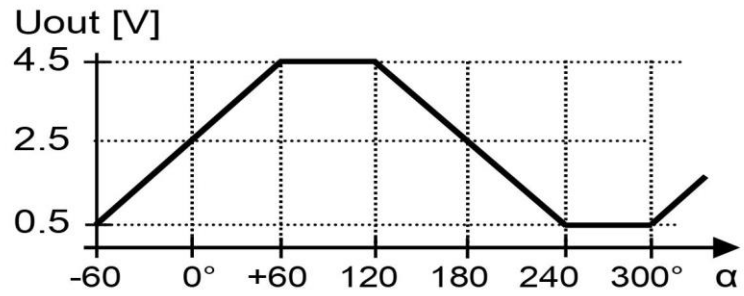
|   |  |
|---|--|
| General specifications 12930, v20220829 |  |
| Housing                                 | Q46: PBT black with metal plate  |
| Dimensions (indicative)                 | 40.5x63x28 mm, shaft excluded.   |
| Mounting                                | Mounting holes in bracket for 2x M4 (screws not included)  |
| Ingress Protection (IEC 60529)          | IP66   |
| Relative Humidity                       | 0 - 95% (non condensing, fully potted)   |
| Weight                                  | approx 70 gr (cable excluded)  |
| Shaft                                   | Stainless steel Ø 6 mm   |
| Shaft type                              | D-type 4,6mm with Ø2mm hole (optional lever compatible with Elobau lever)  |
| Shaft bearing                           | Polyamide (glass-filled), Radial force < 1Nm, Axial force < 8N (push & pull)   |
| Shaft length                            | 13,65 mm w.r.t. mounting surface   |
| Supply voltage                          | 10 - 32 Vdc  |
| Polarity protection                     | Yes  |
| Current consumption                     | ≤ 25 mA  |
| Operating temperature                   | -25 to 80°C  |
| Storage temperature                     | -25 to 85°C  |
| Measuring range                         | 120° (±60°)  |
| Programmable center position            | No, use slot holes to adjust 0° point during mounting  |
| Accuracy                                |  |
| Resolution                              | 12 bit over 360° (min. step 0,09°)   |
| Sensitivity error                       | ±0.5% typ. (@20°C), ±1% typ. (full Temp. range)  |
| Offset error                            | ± 7°   |
| Non linearity                           | < ± 1°   |
| Repeatability                           | 0,13°  |
| Response time                           | < 4 ms   |
| Max speed                               | 15 rpm   |
| Output signal                           | 0,5 - 4,5 V  |
| Short circuit protection                | Yes (T<55°C), Max 10 s (T>55°C)  |
| Output load resistor                    | ≥ 20 kΩ  |
| Connection (length ±10%)                | Pigtail cable: 0,1 m TPE/PP Li9y12y, black ø5,2 mm, wires: 3x0,5 mm², connector AMP superseal 1.5 series 3-pole Cap housing (=male) (p/n 282105-1) Tab contacts (p/n 183036-1) with wire seals (p/n 281934-4) and rubber boot (p/n 880811-2) |
| Wire coding                             | Pin 1: (Black1) Gnd<br>Pin 2: (Black2) Supply Voltage<br>Pin 3: (Black3) Output  |



# QR series

QR46-120HB-V2-P0,1CS3p

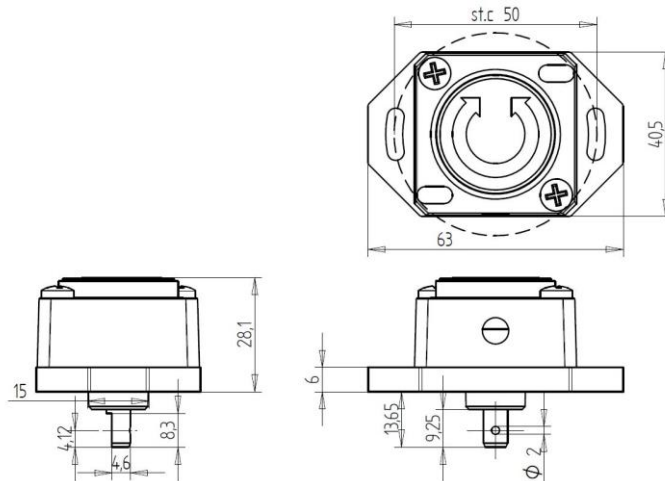
### Transfer characteristic



CCW from 0°:  
output decreases

CW from 0°:  
output increases

### Dimensions (indicative only)



### Optional accessoires

**Optional lever:**  
Order code DIS: 15050



**Optional lever fixing ring:**  
Order code DIS: 15101  
(not required for proper mounting of lever)



### Product Picture

